

Claims:

1. A method for processing a thermoplastic polymeric material which comprises extrusion of molten thermoplastic polymeric material comprising additives of elastomers through a die-set, wherein an elastic layer substantially coats at least a portion of the die cavity inner wall during extrusion.
2. A method according to claim 1, wherein said portion of the die cavity inner wall is adjacent to its exit and having length not less than 10% of the narrowed flow exit passage.
3. A method according to claim 1 or 2, wherein said thermoplastic polymeric material comprising additives of elastomers in amount from 0.001 to 10 weight % based on the total weight of the composition.
4. A method according to claim 3 comprising following succeeding steps:
 - a. extrusion of molten thermoplastic polymeric material comprising additives of elastomers in amount from 0.01 to 10 weight % based on the total weight of the composition,
 - b. extrusion of another thermoplastic polymeric material comprising additives of elastomers in amount from 0 to 1 weight % based on the total weight of the composition.
5. A method according to any claim from 1 to 4, wherein said elastomers are selected from uncured elastomers and they coat at least a portion of the die cavity inner wall and vulcanizing in situ.
6. A method according to any claim from 1 to 4, wherein said elastomers are selected from thermoplastic elastomers.
7. A method according to claim 6, wherein said thermoplastic elastomers having point of glass transition below temperature of processing but above melting temperature of thermoplastic polymeric material and low adhesion to said thermoplastic polymeric material.
8. A method according to claim 5 comprising vulcanizing said uncured elastomers by the reaction of polycondensation or hydrosilation.

9. A method according to claim 8, wherein said portion of the die cavity inner wall having a coating of catalyst to the appropriate reaction of vulcanizing.
10. A method according to claim 9, wherein said catalyst coats said wall during extrusion of said thermoplastic polymeric material.
11. A method according to claim 10 comprising separate in time adding of components of uncured elastomers.
12. A method according to claim 10 comprising adding said catalyst to thermoplastic polymeric material and successive extrusion of another thermoplastic polymeric material.
13. A method according to claim 5, wherein said thermoplastic polymeric material having cross-linking agents.
14. A method according to claim 13, wherein said cross-linking agents are selected from organic peroxides with decomposition temperature above temperature of processing but below decomposition temperature of said thermoplastic polymeric material.
15. A method according to claim 14, wherein vulcanizing of uncured elastomers conducted under such condition as heating at least a portion of the die cavity inner wall adjacent to the die exit till decomposition temperature of said peroxides.
16. An extrusion die for extruding of thermoplastic polymeric material wherein catalysts for appropriate reaction of vulcanization coats at least a portion of the die cavity inner wall.
17. An extrusion die according to claim 16, wherein said catalysts impregnated into rubber coating elastic at processing temperature.
18. A composition of thermoplastic polymeric material comprising polyolefins and elastomers, wherein said elastomers are selected from block copolymers comprising rigid polymers A with point of glass transition above room temperature but below processing temperature and soft polymers B with point of glass transition below room temperature, said block copolymers having structure of linear block copolymers $A(BA)_n$, where $n > 0$, or $(BA)_m$ where $m > 1$ or of graft polymers having soft polymer with at least two grafted segments of rigid polymer and said thermoplastic polymeric material having additives of said elastomers in amount from 0.001 to 10 weight % based on the total weight of the composition.

19. A composition according claim 18, wherein said rigid polymers are selected from a following group: polyethylsulphone, polyvinylpirrolidone, polymethylmetacrylate, polystyrene, rigid polyamide, polyurethane, and said soft polymers are selected from a following group: polymethylphenylsiloxane, polydimethylsiloxane, perfluorinated polyethylene, fluorinated polyethylene or soft copolymers of fluorinated polyolefins with the ratio of fluorine atoms to carbon atoms not less then 1:2.